

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-74. (Canceled)

1 75. (New): In a system for providing multiple access over a single
2 communication channel, a receiver comprising:
3 a digital signal representing a received data burst;
4 a data bus, the digital signal being fed to the data bus;
5 a control bus;
6 a preamble detection component coupled to the control bus, the data signal further
7 being fed to the preamble detection component, the preamble detection component configured to
8 detect preambles using a first spreading code;
9 plural demodulation circuits, each coupled to the data bus and to the control bus,
10 each configured to produce a data stream from data received over the data bus; and
11 a selection component operatively coupled to the preamble detection component
12 and coupled to the control bus, the selection component configured to select an available
13 demodulation circuit,
14 wherein one of the demodulation circuits operates on data in response to control
15 signals issued by the preamble detection component and by the selection component, so that
16 multiple data bursts received by the preamble detection component can be concurrently
17 processed by selected ones of the demodulation circuits.

1 76. (New): The receiver of claim 74 further including plural additional
2 preamble detection components, each configured to detect preambles using a spreading code
3 different from the spreading code of the other preamble detection components, each coupled to
4 receive the data signal, each coupled to the data bus, each coupled to the selection component.

1 77. (New): In a system for providing multiple access over a single
2 communication channel, a receiver comprising:
3 an analog to digital converter to provide a digital signal comprising a plurality of
4 signal components, the signal components being transmitted by a plurality of transmitters, each
5 transmitter using a first spreading code to produce its signal component, the same first spreading
6 code being used by each of the transmitters;
7 a data bus, the digital signal being fed to the data bus;
8 a control bus;
9 a preamble detection component coupled to the control bus, the digital signal
10 further being fed to the preamble detection component, the preamble detection component
11 configured to detect a preamble in each of the received signal components using a first spreading
12 code;
13 plural demodulation circuits, each coupled to the data bus and to the control bus,
14 each demodulation circuit configured to produce a data stream from data received over the data
15 bus; and
16 a selection component operatively coupled to the preamble detection component
17 and coupled to the control bus, the selection component configured to select an available
18 demodulation circuit,
19 wherein one of the demodulation circuits operates on data in response to control
20 signals issued by the preamble detection component and by the selection component, so that
21 multiple data bursts received by the preamble detection component can be concurrently
22 processed by selected ones of the demodulation circuits.

1 78. (New): The receiver of claim 77 further including plural additional
2 preamble detection components, each additional preamble detection component configured to
3 detect preambles using a spreading code different from the spreading code of the other preamble
4 detection components, each coupled to receive the data signal, each coupled to the data bus, each
5 coupled to the selection component.

1 79. (New): In a system for providing multiple access over a single
2 communication channel, a receiver comprising:
3 means for producing a digital signal representing a received data burst, the digital
4 signal comprising a plurality of received signal components having been transmitted from a
5 plurality of different transmitters, each transmitter using a first spreading code that is the same
6 among the transmitters;
7 a data bus, the digital signals being fed to the data bus;
8 a control bus;
9 a preamble detection component coupled to the control bus, the digital signal
10 further being fed to the preamble detection component, the preamble detection component
11 configured to detect preambles using the first spreading code;
12 plural demodulation circuits, each coupled to the data bus and to the control bus,
13 each configured to produce a data stream from data received over the data bus; and
14 a selection component operatively coupled to the preamble detection component
15 and coupled to the control bus, the selection component configured to select an available
16 demodulation circuit,
17 wherein one of the demodulation circuits operates on data in response to control
18 signals issued by the preamble detection component and by the selection component, so that
19 multiple data bursts received by the preamble detection component can be concurrently
20 processed by selected ones of the demodulation circuits.